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AGRICULTURAL.

REMARKS OF MR BINNS

At a Meeting of the Lancaster (Eng.) Agricultural Society.

(Concluded.)

I now proceed to consider the best means of applying manure to the soil. Many may think that in this there can be no difficulty. It would contribute very much to cleanliness, to the health and neatness of farm premises, if manure could be disposed of as soon as produced. In the Dutch mode for instance, it is lost sight of immediately; all is cleanliness about the cow-houses. Whether the manure be solid or liquid, the sooner it is deposited in the ground after it has undergone a slight fermentation the better; if the ground were in that clean state which drilling and proper weeding would ensure, the manure might be deposited in the drills and covered up in the autumn, ready for planting potatoes or sowing turnips in the following spring; this would allow the vegetation of annual weeds, and their destruction by the harrow when the potatoes and turnips were sown. The ground by being ridged up, and having the manure in it, would become mellowed by the winter's frost; and the most favorable time for sowing might be taken advantage of in the spring. The ground would thus retain all the juices and virtue of the manure. Sir H. Davy remarks: "The fermentation and putrefaction of organized substances in the free atmosphere are noxious processes; beneath the surface of the ground they are salutary operations." When this plan cannot be adopted, the manure ought to be carted in winter, out of the yards to heaps in the fields, on which it is intended to be used, and there covered with soil, peat earth, and other substances, and turned over about a week before it is to be applied in spring.

For the turnip crop the use of liquid manure is of great advantage, for if the growth of this plant be checked when young, its success is greatly endangered, and though it may escape the dangers of the fly, it never after grows freely; for clover after mowing, and also for cabbages it is an excellent forcer. For meadow land, I believe manure is best applied immediately on the hay being taken off, for at this period the grass grows rapidly, and soon protects the manure from the sun; the ground not being saturated with moisture absorbs the juices, and less of its goodness is washed away than when applied in winter or spring. But in saying this I do not wish it to be understood that I approve of permanent meadows in general—I would have no meadows except in situations unsuitable for ploughing.

In manuring pasture land the liquid state is preferable. In wet pastures an excellent practice prevails, (but not to the extent it ought to do) that is, to waterfurrow, and mix up the furrows that are thrown out with lime or manure, and then spread the mixture on the surface; this accomplishes two valuable objects at once.

Having now explained the means by which the manure upon a farm may be profitably augmented, and given my views as to its application, I will only detain you a short time by a few remarks upon the effect of these improvements upon the farmer, the landlord, and the public.

The farmer by having an increased supply of manure, and consequently an increased produce upon the same land, would in the first instance be most benefited, and the most enterprising, skilful, and industrious, will always reap the greatest benefit. Let him imitate the Dutch, who are a happy people, fond of home, who delight in the neatness, comfort, and cleanliness of their houses, and are not only skilful agriculturists, but excel in horticulture. As the increasing population will require more food yearly, it is probable there would be a demand at present prices for the increased supply, that these improvements would furnish; the landlord would therefore also be benefited with an increased rent: if prices should be reduced by an increased supply fully equal to the demand, he would in that case also reap advantage, the expense of living being reduced and rents remaining the same.

But to the public the most important advantages would result in the reduced price from the increase of the necessaries of life. The natural effect of this would be a reduction in the price of labor, without curtailing the comfort of the laborer; and more profit to the manufacturer, with an extension of our commerce and manufactures. I am aware that the price of labor is not always governed by the price of provisions, because labor, like other commodities, must depend upon supply and demand, but this would be the tendency; at all events the price of provisions fixes the minimum price of labor.

If this state of things should happily be realized, all bickering about the corn laws would cease; the agriculturist and manufacturer would then cordially shake hands and unite their efforts for the general good, and the latter would perceive that his interest was deeply connected with agriculture. I am of opinion that the volumes that are written about the corn laws, are all no better than waste paper, and if I may presume to question the wisdom of discussions in parliament on the subject, I should say it was misapplied. The agriculturists may be aptly likened to the wagoner calling upon Jupiter, when they have the power and the means of putting their own shoulder to the wheel. If the agriculture of the country were improved to one fifth of the extent it is capable of, the corn laws would be a dead letter, and wonder would be excited that they ever existed amongst an enlightened and industrious people, and our agriculturists would look back with shame upon their cupidity for their dependence upon foreign nations for a supply of food, when the soil and climate of Great Britain offer such facilities for producing food, exceeding beyond any conceivable bounds, the present miserable amount. If the plan proposed should be adopted, the British farmer could raise grain, cattle, horses, and sheep, butter and cheese, as cheaply as these articles could be imported by foreigners, and as to the argument used of their not buying our goods, unless we take their corn, it is not worth a moment's consideration, as they will be glad to buy manufactures from those that will sell them the cheapest, and in proof of this, we have imported no corn lately, but our export of manufactures was never greater.

Our manufacturers are able, from their superior machinery and skill, to export goods to those countries where provisions and the money price of labor are much lower than in England; and if farmers would bestow sufficient care in the selection of their breed of horses, cattle, and sheep, there would be an increasing demand for them nearly the world over; these would be his superior machinery, and grain would be an auxiliary. We might then say, "*these* are our instruments of magic."

I was informed by Mr Wetherell, the celebrated breeder of cattle, yesterday, that several gentlemen from France were lately over in Durham for the purpose of buying great numbers of cattle, even at the present high prices, but if the breeders and farmers generally would pay proper attention to the breeding of stock, those cattle which now sell at 50*l.* and 100*l.*, might be afforded at 20*l.* and 30*l.* Why should agriculture remain dormant when all the arts are making rapid strides; it is the most useful and honorable of all. The senators and rulers of old gloried in it, and were considered the most honorable and useful of men, and I know no reason why the cultivators of the soil who administer so materially to our existence and our pleasure, should not take their place in intellectual society, except that they have not the opportunities for education and information that other classes in towns enjoy, their insulated position is unfavorable in this respect. It may perhaps be considered that I am wandering from the question before the meeting, and I have been expecting to hear that awful word "question," (*a laugh,*) and I should not have ventured so far, if I did not think that the remarks I am now making had some connexion with the subject more immediately before the meeting. The want of education, particularly that portion embracing science in connection with agricultural subjects, is one great and lamentable cause of the retardment of important improvements and marks the disparity between the farmer and the manufacturer. Those who have the courage and disposition to try experiments, are seldom practical men—on the contrary are generally deficient in scientific knowledge, therefore, between them, experiments that would succeed and be profitable, from a want of practical knowledge and due economy, fail and do injury instead of the good that was intended. This peculiar difficulty under which the farmer labors, makes these meetings the more necessary, and may be a sufficient answer to those who ask why agriculture wants so much bolstering up by meetings and premiums when the manufacturers don't require it? But is there no society of arts under the peculiar care of the government, where rewards are bestowed on mechanical inventions? Notwithstanding the advantages enjoyed by these classes, laws are made for the education of the manufactur-

ing population, but agriculture may take its chance. However, she is blessed with advantages, and attended with the choicest pleasures; the rural life is a life of health, invigorating both to the mind and body. But let the practical agriculturists or their children be educated, then we should see agriculture make rapid strides. It is a subject well worthy the attention of the landowners, and if I might venture to recommend a plan I should say, establish, I do not mean agricultural schools, as generally understood, but schools for general education; let the children of farmers be also taught the elements of mechanics, chemistry, the nature of manures, plants, and vegetation. Some plan ought to be adopted for promoting this desirable object; to enter upon it now would occupy too much time; I wish merely to call the attention of the landlords and influential individuals to the subject.

CATTLE SHOW AT BRIDGEWATER,

On Wednesday, Oct. 16, 1839.

List of Premiums proposed by the Plymouth County Agricultural Society.

Improvements and Manure.

To the person who shall cultivate the greatest number of Chinese mulberry trees, either from seed or cuttings, which shall be in the most flourishing condition the first day of September, 1839 $8
For the next greatest number 4
To every person in the county who shall build before September, 1839, one hundred rods of good stone wall 9
For every additional hundred rods 12
And in the same proportion for fractional parts of a hundred rods after two hundred have been built.
To the person who shall collect the greatest quantity of any kind of material (excepting manure from stock) which in the opinion of the committee shall more than pay the cost of collecting and spreading on his farm between the first day of September last, and the first day of September next, not less than 400 loads, 40 cubic feet considered a load 20
A second premium for the same object, not less than 300 loads 15
A third not less than 250 loads 12
A fourth " " " 200 " 10

The committee are authorised to distribute eight vols. N. E. Farmer and eight vols. Yankee Farmer.

N. B.—Claims to be made on or before the first day of September, 1839, to Morrill Allen, Pembroke.

Claimants to entitle themselves to the above offered premiums, must make a particular statement in writing, of their several operations.

Produce.

For the greatest quantity of wheat, raised on not less than one acre of land, nor less than twenty bushels $12
For the next greatest quantity do 8
For do do do do 4
For the best crop of Indian corn raised on one acre, not less than 60 bushels, (75 lbs. in the ear considered a bushel,) not to be harvested before the 15th of October, 1839 12
Next best crop 8
Next best do 5
To the person who shall make the most satisfactory experiment to determine the comparative utility of cutting the stalks or topping Indian corn, or cutting and shocking, or letting the stalks remain until the corn is harvested, experiment to be made on not less than half an acre of land 8
For the greatest quantity of buckwheat, not less than 35 bushels to an acre 8
For the next greatest quantity not less than 25 bushels to an acre 4
For the best crop of potatoes on not less than one acre of land, and not less than 400 bushels to the acre 8
For the next best do. not less than 300 bushels, (56 lbs. to be considered a bushel of every kind of root except onions,) 7
For the best crop of oats on not less than two acres, and not less than 50 bushels to the acre 7
For the next best on one acre 4
For the greatest number of bushels of rye raised on an acre, and not less than 30 bushels 6
For the next best do. 5
For the greatest quantity of white beans raised on an acre, not less than 15 bushels 6
For the next do. do. not less than 6 bushels on half an acre, 4
For the greatest quantity of carrots raised on not less than one acre of land, and not less than 300 bushels 8
For the next greatest quantity on half an acre 4
For the greatest quantity of onions, on not less than a quarter of an acre of land, and not less than 75 bushels 5
For the greatest quantity of sugar beets, raised on not less than 6 square rods of ground 4
If the sugar should be extracted from the beets and a satisfactory account of the processes given, the premium will be trebled.
For the greatest quantity of common turnips on an acre, not less than 300 bushels 5
For the best crop of ruta baga or any other sort of eastern turnips, not less than 400 bushels to the acre 5

Committee authorized to distribute 8 vols. N. E. Farmer, and 8 of Yankee Farmer, as additions to the above offered premiums, or as gratuities to unsuccessful claimants, according to their judgment of merit.

P. S.—It will be required of claimants of the above premiums to state in writing the condition of the land at the time the course of cultivation for the approaching season may commence, and the several operations in that cultivation, and the amount of produce must be attested by the owner and one laborer.

A certificate of the measurement of the land by some respectable surveyor will be required. Claims to be made on or before October 16, 1839, but the evidence of the amount of crops need not be produced until the 10th of November next. Communications to be made to Anthony Collamore, of Pembroke, Chairman of the committee on Produce.

Stock.

For the best fat ox $6
Next best do 5
Next best do 4
For the best milch cow 8
Next best do 5
Next best do 3
For the best heifer, not less than one nor more than three years old 4
For the second best do do 2
For the best bull not less than 18 months old 8
For the second best do do 6
For the best bull calf, not less than 5 months old, nor more than 12 4
For the second best do do 3
For the best heifer calf, do do 3
For the second best do do 2

Committee authorized to distribute 4 vols. N. E. Farmer, and 4 of Yankee Farmer.

Cattle not to be removed from the pens before 1 o'clock, P. M. Claimants for premiums on stock are required to exhibit to the committee evidence of the mode of rearing and treating animals offered for premium.

Animals must have been kept in the county 6 months to entitle them to premiums.

Claims for stock of every sort and entries for the ploughing match to be made on or before October 12, 1839, to Abram Washburn, 2d, Bridgewater.

Ploughing Match.

The Ploughing Match will commence at 9 o'clock, A. M. on the day of exhibition.

1st premium $8
2d do 6
3d do 4
4th do 3
5th do 2

The work will be performed with one yoke of oxen.

Committee authorized to distribute 3 vols. N. E. Farmer, and 3 of Yankee Farmer.

Working Oxen and Steers.

For the best yoke of working oxen $7
For the second best do do 5
For the best do raised and trained in the county 8
For the best yoke of steers, not less than two nor more than four years old 5
For the second best do 3

Committee authorized to distribute 2 vols. N. E. Farmer, and 2 of Yankee Farmer.

Articles of the Dairy.

For the best butter, not less than 50 lbs. $4
Next best do not less than 25 lbs. 2
Next best do do 1
For the best cheese not less than 200 lbs. 5
Next best do not less than 100 lbs. 3
Next best do do 2

Committee authorized to distribute 2 vols. N. E. Farmer, and 2 of Yankee Farmer.

Fruits and Vegetables.

The committee on Fruits and Vegetables are authorized to distribute 20 dollars, for extraordinary fruits and vegetables that may be deposited in the hall for exhibition.

Manufactures.

The committee on Cloths and the most useful articles of household manufacture, are authorized to award in premiums, according to their judgment of the comparative excellence and utility of the articles presented $75

Bonnets and Fancy Articles.

The committee on articles of Usefulness and Fancy, are authorized to award $50

Inventions.

The committee are authorized to distribute for inventions and improvements in the structure of implements of agriculture, &c. as rewards of ingenuity $20

Committee authorized to distribute 2 vols. N. E. Farmer, and 2 of Yankee Farmer.

COCOONS AND SILK.

To the person who shall raise and exhibit the largest quantity of cocoons $4
For the next greatest quantity 3
For do do 2
For every ounce of wrought silk raised and worked in the county, ten cents.

P. S.—Cloths, fancy articles, products of the dairy, cocoons andsilks articles of invention, fruits, vegetables, &c. must be deposited in the town house before 9 o'clock, A. M. on the day of exhibition.

Articles manufactured out of the county, not admissible.

PREMIUMS CLAIMABLE IN FUTURE YEARS.

To the person who shall on the first day of September, 1840, have the largest quantity of land in the best state of preparation for English mowing, which is now fresh meadow or swamp land $25
Second premium for the same object 15
Third do do do 10
Claimants for the above premiums must make entries with Morrill Allen, Chairman of the committee on improvements, on or before the first day of June, 1839, that the committee may have opportunity to view the land before operation upon it commences.
For the most extensive forest of any sort of trees suitable for timber, raised from the seed, not less than 1000 trees to the acre, which shall be in the most flourishing condition and more than five years old in September, 1845 $50
Second premium for the same object 30
Third do do 20

Premiums not demanded within one year will be considered as generously given to promote the objects of the Society.

On all premiums above five dollars awarded to gentlemen not members of the Society, the Treasurer is directed to make a deduction of 25 per cent. to increase the funds.

The Trustees will not consider themselves obliged by the terms of the above offers, to give a premium in any case, when it shall be evident there has been no competition, nor more than ordinary exertion.

All entries for premiums may be made by letters post paid. Letters not post paid, will not be considered.

By order of the Trustees.

ISAAC ALDEN.

Bridgewater, January, 1839.

The subjoined essay contains information and matter for reflection to our farmers, of the very highest importance. We urge upon them to give it more than one careful reading. We may be thought importunate in urging so strongly the subject of liquid manure upon the farmers, but we should not be true to our convictions of its importance if we failed to do it. The farmers in the interior are constantly complaining of the want of manure; and yet they take no measures whatever to supply the deficiency by saving their liquid manure. The farmers in the vicinity of the capital and the large towns pay three, four, five, six, and we have known to be paid even seven dollars per cord for manure, and then transport it several miles, and yet the subject of liquid manure is hardly thought of. Two or three things may be considered as well established, and they are of the highest moment. The liquid manure of an animal is of equal value as the solid manure, if the whole of each could be preserved and applied. Next, human urine is among the most efficacious of all manures; next, plants absorb nothing which is not in a fluid state; and manures applied in a fluid state are more active, immediate, and powerful than when applied in any other form. H. C.

ON MANURES—THEIR USE AND COMPOSITION.

BY CUTHBERT WILLIAM JOHNSON, ESQ.

Liquid Manure.

It is only in modern days that the idea of applying fertilizing matters to the soil, in a fluid state, has been seriously entertained by the cultivators of the soil. This great modern improvement has been one of the results of applying the researches of philosophy to the processes of the farmer—the fruit of carefully conducted experiments first suggested by the sagacious observations of the chemist.

It could not, however, have escaped the notice of the very earliest cultivators of the soil, that the drainage of the farm-yard, as it dispersed itself over the land, produced a most luxuriant crop of grass; that the ground on which a dunghill had rested was ever distinguished for the rankness of its vegetable products, and that those grass lands which were periodically flooded by the upland waters, were the most valuable of meadows,—all Egypt in its adoration of the Nile, testified to the same great truth: still amid all these self-apparent facts, ages elapsed before any correct conclusions were formed as to the cause of the fertilizing power of these liquid manures.

It was held to be the result of water, and water only, for no regard was had to the earthy, saline, or organic substances with which it was impregnated, and the fertility produced by a dunghill was sagely attributed, not to the fluid matters drained from it, but from the dunghill *warming the land*; and so far did they carry their arguments, that some of the Greek philosophers were fully convinced that water, and pure water only, was the sole food of plants, an error which centuries afterwards M. Van Helmont, a celebrated Dutch philosopher nearly succeeded in perpetuating by some curious though deceptive experiments upon a willow tree, which he nourished for a lengthened period solely by rain water, which water, thus collected in the ordinary way, always contains earthy and other substances, in minute proportions it is true, yet quite sufficient to furnish an ample supply for the willow, as M. Bergman afterwards very clearly proved, and every attempt to raise plants from pure water has invariably failed. An oak raised from an acorn in pure water, makes less and less progress every year, and those persons who cultivate hyacinths and other bulbous roots in water, are well aware that without these bulbs are placed in the earth every other year, they actually refuse to blow, and at last cease even to vegetate. It is clearly proved, therefore, that it is not pure water alone which constitutes the chief fertilizing ingredient in liquid manures, as was formerly supposed. Liquid manure, however, like all other fertilizers, must be applied with discretion, and in accordance with the habits of the crop, thus the proportion of flood water, in which the rice plant or the grasses of the meadow grow luxuriantly, would be destructive to barley or wheat, an excess of any kind indeed of manure is naturally pernicious to all plants.

Almost all the earthy, saline, or alkaline substances found in vegetables are solulbe in water—thus lime, gypsum, and even silica, apparently totally insoluble substances, and very common vegetable ingredients, are all in very small proportions found in water, and there is little doubt but that all these substances are absorbed by plants in the fluid state, for every attempt of Sir Humphrey Davy to make plants absorb the fine impalpable powder of charcoal, obtained by washing gunpowder, entirely failed. It has been shown also by various well-contrived experiments that the roots of plants have the power of separating the various substances dissolved together in water in a very curious manner.—Davy caused the roots of some plants of mint to be analysed, which had grown both in pure water and in sugar and water. One hundred and twenty grains of the roots of the mint which had grown in common water, yielded three grains and a half of a deep olive extract of a sweetish and astringent taste; one hundred and twenty grains of the roots which had grown in the sugar and water, afforded five grains of pale, greenish, sweetish extract, not so astringent as the other. This, therefore, is another instance of the power possessed by plants of absorbing many manures in an unaltered state. Many experiments with saline manures support this position, thus in those of the late Mr George Sinclair.

1450 grains of wheat chaff, grown on an unsalted soil, yielded of common salt	2 3-4	grains.
1450 do. from a soil salted with 44 bushels of salt per acre	4	do.
1450 do. seeds, from soils unsalted	1-6	do.
1450 do. from soil treated with 44 bushels of salt per acre	1-4	do.

In this case the quantity of common salt absorbed by the plant evidently increased with the increase of the supply. The preference, too, which plants show for different salts is very remarkable, as first shown in some very curious experiments by M. Saussure. In these trials various salts were dissolved together in water, and plants of polygonum persecaria, and bidens cahabina, with their roots, were placed in the solution, the same weight of each salt was dissolved, and the solution contained 100th of its weight of each salt, and in stating the result every salt is supposed to consist of 100 parts.

	Proportion absorbed by the plant.
1.—Sulphate of soda (glauber salt)	11.7
Muriate of soda (common salt)	22.
2.—Sulphate of soda	12.
Muriate of potash	17.
3.—Sulphate of soda	6.
Muriate of soda	10.
Acetate of lime	0.
4.—Gum	26.
Sugar	36.

Other plants showed similar results in the varying quantity of the salts which they absorbed.—Such were the Scotch fir, the mentha piperita, peppermint, &c., as long as they were furnished with their roots; but if these were cut off, or removed in any way, the plants then absorbed the solutions indiscriminately.

It is from plants always absorbing their food in a fluid state that liquid manures are so valuable as fertilizers; for in the dissolution of the excrements of animals in water, as practised so advantageously in foreign countries, the dung is merely rendered

more easily soluble by the plant, and better diffused in the land. No new compound is formed by the mixture; the action of the dung mixed with four or five times its weight of water is apparently much less energetic; and yet this plan is decidedly advantageous, successfully produces the most luxuriant crops, is an old practice on the continent, is gaining ground in England, and the more it is understood the oftener will it be adopted.

Liquid manure is called by the farmers of Switzerland *gulle*, in France it is called *lizier;* they obtain it by collecting the drainage of their stalls and stables into underground reservoirs or pits, where it is allowed to ferment until it attains a slimy or mucous state. The mode adopted by the cultivators of Zurich is thus described in the *Bulletin de la Soc. de Geneve:*—

"The floor on which the cattle are stalled is formed of boards, with an inclination of four inches from the head to the hinder part of the animal, whose excrements fall into the gutter behind, in the manner usual in English cow-houses; the depth of the gutter is fifteen inches, its width ten inches; it should be so formed as to be capable of receiving at pleasure water from a reservoir placed near to it; it communicates with five pits by holes, which are opened for the passage of the slime or closed as occasion requires. The pits or reservoirs of manure are covered over with a floor of boarding, placed a little below that on which the animals stand; this covering is important as facilitating fermentation. The pits or reservoirs are made in masonry, well cemented, and should be bottomed in clay, well beaten to avoid waste. They should be five in number, in order that the liquid may not be disturbed during the fermentation which usually lasts four weeks. Their dimensions should be calculated according to the number of the animals held by the stable, so that each may be filled in a week; but whether full or not, the pit must be closed at the week's end, in order to maintain the regularity of the system of emptying: the reservoirs are emptied by means of portable pumps.

In the evening, the keeper of the stables lets a proper quantity of water into the gutter, and returning to the stable in the morning, he carefully mixes with the water the excrement which has fallen into it, breaking up the more compact parts, so as to form of the whole an equal and flowing liquid. During the day, whenever he comes into the stable, he sweeps whatever excrement may be found under the cattle into the trench, which may be emptied as often as the liquid it contains is found to be of the proper thickness; the best proportion of the mixture is three-fourths of water and one-fourth of excrement, if the cattle be fed on corn, but if in a course of fattening, one-fifth of excrement to four-fifths of water will be sufficient."

This mode of fattening cattle, says Mr Loudon, is in general use in Holland and in the Netherlands, and we have seen it practised in France, at Trappe and Grignion, near Versailles, at Rovile, near Nancy, at Ebensberg and Schleipsheim, near Munich, and at Hohenheim and Weill, near Stuttgard.

With regard to the quantity of liquid manure to be applied per acre, and the best mode of applying it, much must depend upon the circumstances under which the cultivator is placed, and the richness of the liquid: if the impurities dissolved or mechanically suspended in the water are only equal to one part in ten, then twenty to thirty tons per acre of the liquid will be found to be amply sufficient to produce the most excellent results; if the fluid mass is richer, then less will suffice.

For gardens and small plots of ground the liquid may be readily and evenly distributed over the beds by means of a watering pot or garden engine; for fields it must be carried in water carts, and distributed either by being let into a transverse trough, pierced with holes in the manner of the carts employed for street waterings, or the Flemish plan may be adopted, of taking it into the fields in water carts open at the top, (furnished with slight movable covers,) and then distributing it out of the carts very evenly by means of a scoop.

I would suggest to the cultivator, in case he intends to employ either the watering pot or any other plan by which it will have to pass through small holes, the advantage of straining the liquid before he pumps it into the vessel, either through coarse sand or a basket; the pieces of straw and other coarsely divided matters thus separated by the strainer, he will find to add very slightly indeed to the fertilising powers of the liquid, and yet they will materially hinder the even distribution of the manure.

If it shall occur to the farmer that the quantity of solid manure thus conveyed to the soil will not in reality exceed two or three tons per acre, and that this is in appearance a very small allowance, I would then remind him that the quantity thus conveyed consists of the soluble or richest portion of the manure, and is, in fact, the extract without any of the straw or other inert residuum usually carried on to the soil. I have elsewhere endeavored to show that a flooding with river water so productive of fertility in the water meadows, does not convey on to the land more than two tons per acre of animal and vegetable substances, and in the very successful experiments of the late Lord Somerville with whale blubber, not more than a ton and a half per acre mixed with earth was employed.—The Essex farmers find three-quarters of a ton of sprats amply sufficient, and two hundred weight per acre of gypsum is the ordinary allowance; it is a mistaken conclusion, therefore, which is often entertained by farmers, that manure must be added to a soil in large quantities to produce a desired result.

Liquid manure is easily and with excellent results applied to grass land; it is perhaps the most cleanly dressing that pastures can receive; I should advise, however, that wet or showery weather be chosen for the time of watering, that the manure may be more readily and completely absorbed by the soil. In some experiments with the liquid collected from a cow-house, ten tons per acre have been found amply sufficient by Mr Hammond, on some meadows near to Lewes, in Sussex.

The land on which the manure was sprinkled by means of a water cart has twice the quantity of grass than that not so fertilized; it is free from weeds which have been evidently choked with the grass, while the herbage of the other portion is poor and short, and very foul.

One great constituent of all the drainage matters of dunghills consists of urine, and this substance enters into the composition of almost all the artificially prepared liquid manures; and there is perhaps no fertilizer more powerful in its effects.—"All urine," said Sir Humphrey Davy, "contains the essential elements of vegetables in a state of solution; during the putrefaction of urine the greatest part of the soluble animal matter that it contains is destroyed; it consequently should be used as fresh as possible; but if not mixed with solid matter it should be diluted with water, as when pure it contains too large a quantity of animal matter to form a proper fluid nourishment for absorption by the roots of plants."

Urine has been analysed by M. Berzelius, and its constituents were found to be as follows:

Water	933.00
Nephrin (a peculiar animal matter)	30.10
Sulphate of potash	3.71
Sulphate of soda	3.16
Phosphate of soda	2.94
Muriate of soda (common salt)	4.44
Phosphate of ammonia	1.65
Muriate of ammonia	1.50
Lactic acid, Lactate of ammonia, Animal matter mixed with nephrin	17.14
Earthy phospates (earth of bones) and fluate of lime	1.00
Uric acid	1.00
Mucus	0.32
Silica	0.03
	1000.00

This analysis amply bears out the observation of Davy, that urine contains the essential elements of vegetables; and hence the magic effects which it produces when spread upon the earth: it contains many constituents which are a direct food of plants, and by the decomposition of others furnishes a supply in another form, containing all the ammoniacal salts of the dunghill, the phosphate of lime of bones, and abundance of easily decomposable animal matters.

The urine of the cow has been analysed by Mr Brande: he found it composed of—

Water	65
Phosphate of lime	3
Muriate of potash, Muriate of ammonia	15
Sulphate of potash	6
Carbonate of potash, Carbonate of ammonia	4
Urea	4
Loss	3
	100

The urine of the horse has been examined by M. M. Fourcroy and Vaquelin, and found to be composed of the following substances:

Carbonate of lime	.011
Carbonate of soda	.009
Benzoate of soda	.024
Muriate of potash	.009
Urea	.007
Water and mucilage	.940

The most extensive experiments with urine as a fertilizer, with which I am acquainted, were those made by Mr Harley, in the neighborhood of Glasgow, which he thus describes: "Early in the season, part of the proprietor's farm and some small fields contiguous to the cow-house, were sown with barley and grass seeds; these were watered with cow urine, by means of an engine on the principle of a fire-engine. There were also used for that purpose hand-barrows with broad wheels, upon which barrels were placed filled with urine. Under the barrels were placed conductors, about eight feet long, perforated with small holes. These barrows were easily wheeled along the rich soft ground, which would have been destroyed by horses and

carts. The urine was carted to the field in large casks, from which it was carried in stands resting on spokes, to the engine and barrows. The grass of the fields thus irrigated was cut five or six times a year, and though not very long in the blade, yet there was always a great weight of produce—indeed it was so rich and thick that it would have rotted unless cut often. The first cutting generally commenced about the middle of April, and was continued once a month. The grass was cut during the day when the weather was wet or moist, but when it was dry, it was cut late at night or early in the morning, and the land irrrigated immediately after the grass was cut. Sir John Sinclair visited one of these fields which had been cut sixteen times in three years."

"Both urine and soap suds," continues Mr Harley, "were applied to the watering of fruit trees.—During the winter and the early part of the spring, every tree was washed from the top to the root, which cleansed the bark, promoted a luxuriant growth, and made the trees bear well. There were about five acres of Garnet Hill, near Glasgow, planted with strawberries of assorted kinds, the ground was prepared as stated above, (dug, ploughed, and some rubbish added,) and the strawberries were planted in rows which were trenched between every fall or winter. The field was divided into sections across the hill, and at the top or head of each of these sections there was a small trench made. The cow urine was carted along the top of the field, and by turning the stop-cock the urine ran into the trench at the top of the highest section; a small opening was made between every row of the strawberries to admit the urine which saturated the first section, the remainder then went into the second trench, &c. to the bottom.

"The highest sections were the poorest, but from their being more richly saturated with the liquid, they soon became as fertile as the lowest. The mode of irrigating was then changed, viz.; a small cut was made from the top to the bottom of the field, and the urine made to run down that cut and fill each respective trench, allowing a larger quantity to the sections that stood most in need of it. This mode produced abundant crops of strawberries, very rich in quality, and, having a southern aspect, of most delicious flavor."

"The urine," continues Mr Harley, "destroyed worms and almost every kind of vermin;" and it was proved that when thrown by means of a garden engine over fruit trees, that the urine was a complete destruction to the predatory insects with which they were infested, and that when applied to grass plats, it was equally pernicious to earth worms, entirely preventing the earth-casts with which they are wont to annoy the gardener.

(To be continued.)

The quantity of Corn imported into this place the four first months of the present year was - - 417,292 bushels.

Same period last year	425,013	"
Do do 1837	419,042	"
Received since 1st May	319,632	"
Do do 1st January	736,924	"
Do do Oats, 4 months	130,096	"
Same period last year	113,322	"
Do do 1837	97,634	"
Received since 1st May	32,092	"
Do do 1st January	162,188	"
Do do Rye, 4 months	25,915	"
Same period last year	35,745	"
Do do 1837	6,478	"
Received since May 1st	4,396	"
Do do January 1st	30,311	"

Boston Courier.

The price of flour has fallen rapidly. Howard street sells in Baltimore at $5 75.

[For the New England Farmer.]

How often do we hear it said that "Massachusetts farmers cannot get a living"—but a few days since I heard a farmer remark that "no one could expect by farming to receive more than four per cent. for their capital invested." These things have been so frequently reiterated that our young men feel that they are under the necessity of seeking other employments or remove to the west, where it is represented that labor receives a greater return. I am aware that much may be done to increase the income of the farmer, and trust that light is dawning and that a new impulse has been given, which ere long will convince our young men that agriculture in Massachusetts is not only honorable but profitable. It has appeared to me strange that farmers generally neglect to keep correct accounts in reference to their farms; probably owing to this many have been deceived; their farms not having the credit for all they produce.—In your paper of last week, Mr Anthony has given an account from which something may be learned. It has been my practice to keep an *exact* account, charging everything and giving credit for everything belonging to the farm. In order that I may be corrected if in an error, I shall *suppose a case*, and give you the account as I keep my own.

Suppose my family consist of ten children, and one of the number, by sickness or some other calamity, is a constant bill of expense, and suppose my neighbor is not blessed with children, and we have farms nearly alike and managed nearly in the same way—our expenses will not be the same, and unless a proper account is kept, I may be led to complain of the unprofitable business of farming. The following account is on the supposition that I am "clear of the world" and my all is in my farm and stock. I estimate my stock and tools, &c., at prices they would command, being careful not to deceive myself on this point—considering that for my own use they are worth more than estimated at; also intending to improve my farm and make it more valuable.

1838, April 1. *Farm Dr.*	
Cost of farm	$3000
Manure on hand	150
Stock	400
Produce	200
Tools	250
Dairy utensils	50
	$4050
Purchased during the year stock and tools	200
Sundry expenses	42
Paid for labor	40
Board	17
Labor of self and two sons including board	575
Labor in dairy	75
Paid taxes	15
Insurance	5
Interest on $4050	243
	$5262
Balance profit	400
	$5662

Cr.

By hay and grain sold	$196
Butter, cheese, veal and milk	394
Pork and beef	450
Wood for family above what was used for dairy, &c.	45
Grain, butter, milk, &c. &c. for family	195
Rent of house ank use of horse	75
1839—March 31—On hand	400
Produce	350
Manure	250
Tools	262
Dairy utensils	45
Farm	3000
	$5662

And now let us suppose my farm sold and the account closed, and the result as above. I have to support my family—

Received for board	$17
Labor and do	650
Interest	243
Profit	400
	$1310

Now my expenses, arising from a numerous family, sickness, the education of a son, &c. may have been $1600, if so, should it be said that farming is not profitable? It appears that I am paid for my labor and receive more than 15 per cent. interest for the capital employed.

I have made this statement, believing that farmers often are deceived, and that a multitude of farmers in Massachusetts can show a better result than is exhibited by this account. T.

Westboro', June, 1839.

Wool.—The season for sheep-shearing has passed, and we learn that there has been quite a large clip, and that the growers generally, are convinced that they will not be able to obtain the extravagant prices which a few months since it was expected would be realized. In consequence of some advance in prices of woollen goods last autumn, there was manifested by the manufacturers a strong disposition to lay in heavy supplies of wool, and an undue demand for the article was created, thereby causing a large advance in prices, which was far from being warranted, even if the highest prices for goods which were anticipated, had been realized. But instead of any permanent improvement in wool, to any great extent, the advance which had taken place was not maintained, and prices receded to nearly the lowest point which they had been during the preceding years. The consequence has been, that manufacturers generally, have not been doing a profitable, nor in many cases, a saving business, and will not, for any length of time, continue their operations under such unfavorable state of things. Already several establishments have stopped a portion of their machinery, and others will do so unless the prices of wool shall justify their going on. Some manufacturers have sold their woollen machinery at a great loss, and are preparing to work cotton. We have information from the western part of Pennsylvania, that the growers are selling their wool at an advance of about five cents per pound on the lowest prices realized last year. The wool grown in that region is the best produced in the country. The quantity is very large, and is likely to be in market quite early this season. Prices range there from 35 to 50c. Some very choice flocks command from 50 to 55 c. In New York sales are making at from 33 to 50 c. and in Vermont from 30 to 50c. No new wool has yet been brought to the principal markets, and as prices cannot be fixed until sales have been effected there, we omit quotations for the present The supply of pulled Wool is limited, and sales continue to be made without any material change, as regards prices. Of coarse Foreign Wool there is not a large supply, but sufficient to meet the present demand, and prices are firm.—*Courier.*

Dreadful. Mr S. C. Johnson, of Raleigh, N. C. accidentally killed his wife on the 18th ult. by discharging his gun into the garden, not knowing that Mrs J. was there.

NEW ENGLAND FARMER,

AND HORTICULTURAL REGISTER.

BOSTON, WEDNESDAY, JUNE 19, 1839.

LETTER FROM J. HOLBROOK.

Berea, May 24, 1839.

REV. MR COLMAN—

Dear Sir,—I send you a copy of the Cleveland Herald, containing six essays on the "Education of Farmers," which to some extent, at least, will meet your views on the subject. The importance of the subject I am sure you will appreciate, and I think approve of the measures to promote it, which are the two principal points in the case.

I have been strongly impressed with the policy of referring farmers to themselves, the means within and around them, for intellectual and moral culture, from a large intercourse among the farmers in Pennsylvania, where I have recently spent two or three years. That measure has led the German farmers, who, you know, have been opposed to a college, and even a book education, to enter heartily and successfully upon *educating themselves*. It is exceedingly common to find among this class of our citizens, large "FAMILY CABINETS," embracing a great variety of minerals, plants, insects, &c. In some sections almost every family has such a collection, and in connexion with them they have numerous Lyceums, one of which started the "PRACTICAL FARMER," of Mechanicsburg. The members have also entered very systematically into experimental agriculture, by selecting a large list of experiments to be tried, and dividing them and allotting them to the particular charge of respective individuals.

It is not my wish or intention to speak to the disparagement of colleges or any other class of institutions, or of the individuals educated at them. I only wish to have farmers understand and appreciate their own facilities for acquiring knowledge, with the amount and kind they already possess. If I am not mistaken, knowing how to hoe a hill of corn, harness a horse, feed a pig, or make a cheese is knowledge, and *useful knowledge*, no less than an acquaintance with the inflections of a Greek verb.

I am also convinced from large experience, that a farm is one of the best establishments for promoting solid science. I have attended three courses of lectures by Professor Silliman, and was much with him in his laboratory, but I found the farm which I cultivated for many years, the best laboratory of the two—certainly for many of the fundamental principles of chemical science.

The plan for supplying our schools with teachers will probably meet your approbation, particularly as it is intended for farming communities or country towns, and not for cities or large villages. The plan meets almost entire approbation in Pennsylvania, where it has been fully and extensively discussed, and, to some extent, put in practice.

The plan of "*Circuit Schools*" you will probably be disposed, as I am sure you will be able, to advance. A prominent object of our establishment, the "LYCEUM VILLAGE" and Seminary, is to qualify teachers to take charge of such schools, also to act as agents or missionaries for the cause of education, of a more natural, practical and elevated character, than is generally procured in our schools, or even colleges. The applicants are very numerous, many more than we can accommodate at present, though by another year we hope to have our accommodations much enlarged. We have 1350 acres of land, ample water power, both on a creek and river, inexhaustible stone quarries, for grindstones, much the best I have ever seen, far superior to the Nova Scotia stones; two saw mills at work most of the time, cutting lumber for our village, and some measures in progress for the manufactory of apparatus, with the intention of reducing the price to one half or one third of its present cost, and of a superior quality, for practical illustrations, in chemistry, natural philosophy, mechanics, hydraulics, arithmetic, geometry, astronomy, &c. to any now to be procured.

The plan of "*Scientific Exchanges*" referred to in the essays is already widely extended, both in this and other countries. Specimens, numerous specimens, both of nature and art, have been sent from schools in various places, especially in Philadelphia and New York, to every part of the world. Measures are now in progress to send specimens to every member of Congress and to every legislature in the Union, during their next sessions. Many have already been sent to the members of Congress and with the happiest results; they have also been sent or exhibited at several legislatures, where they have made very brief but very effective speeches in favor of rational practical education.

Mr Tucker, of the Genesee Farmer, is deeply interested in these plans, and desirous of presenting them to his numerous readers in a tangible practicable form.—If the same should be done by all or most of thirtytwo agricultural journals in our country, a system of measures might probably be put in operation, which would greatly promote and greatly elevate the character, both of education and of farming interests.

Rev. H. O. Sheldon, Post Master of this place, is a warm and efficient friend of rational improvement of every kind; and is a successful agent of the "Genesee Farmer," many of which he distributes from his office. If you should deem it expedient to present this subject under any form in your paper, he, no less than myself, would esteem it a favor to have a copy containing the notice sent to him. He might possibly circulate a few copies to subscribers here of the New England Farmer. He has procured, at least, one subscriber for the Monthly Visitor, of Concord, N. H., and has introduced various publications of a useful character to the citizens.

I have extended this communication much beyond my intention when I took my pen, and will add the very respectful regards of

Your Friend,
J. HOLBROOK.

—

Remarks on Mr Holbrook's Letter—Condition of Pennsylvania—Practical Education.

We insert with much pleasure Mr Holbrook's letter; and shall wait impatiently the arrival of the Cleveland Herald, for a fuller explanation of his views on a subject of the highest moment, Practical and Popular Education We shall not now go at large into this matter, as we have an article on the subject in preparation for another occasion; and do not wish to anticipate it.

We are glad to hear from him in Pennsylvania; and should have expected from the agricultural population of that state all the encouragement which his plans for practical improvement have met with. We have often heard with incredulity and some mixture of indignation, the German population of Pennsylvania spoken of in disdain as a set of ignorant, semi-savage boors, who despise everything like education and have no desire for knowledge; but when we have passed through different sections of that magnificent state, and witnessed their noble agricultural establishments and improvements, which are not surpassed and scarcely rivalled in any part of our country, their substantial houses, their noble barns, their spring houses, their fields waving with the most luxuriant and richest harvests, which the earth can yield, and which can be brought out only at the call of eminent skill and industry; when we have seen their splendid teams of horses, and the excellence of their equipments, the abundance of their markets and the immense amounts of their agricultural products; when we consider the unrivalled excellence of their butter and beef, and mutton and poultry, and their early and liberal introduction of the best breeds of sheep and neat cattle, and their persevering and expensive attempts to improve their stock; when further we observe their extraordinary public improvements in turnpikes, bridges, railroads and canals in which Pennsylvania has completely distanced all her sister states, by her munificent investments of capital and by the admirable manner in which her public works have been executed, then we have been disposed to ask, where is the evidence of all this ignorance and stupidity, this aversion to improvement with which the population of Pennsylvania is incessantly reproached? This assumption of superiority on the part of some persons, who, where the German farmers have been ready to spend a dollar, they have been reluctant to expend even a cent for public improvement, is exquisitely ridiculous, to apply no harsher term.

It was our good fortune three or four years since, in travelling through Pennsylvania, to fall in with a large body of Pennsylvanian gentlemen, who were proceeding together to some public business-meeting at Harrisburg, and with whom we passed a day and a night in the canal boat. They were Pennsylvania farmers and manufacturers; and men of better manners or better information are seldom met with. A population composed of such men, or of men of the character indicated by their private and public improvements, we cannot doubt will be ready to second with their personal influence and their money, any feasible, practical, and substantial schemes for the general welfare.

We cannot agree with Mr Holbrook in speaking disparagingly of scientific lectures in chemistry, as we think he does in his letter. He is among the last men from whom we should expect it, and perhaps we misunderstand him. We admit that what a man acquires from his own personal investigations and experiments affects his mind with a deeper impression than that to which he merely listens or of which he is a passive spectator. He may find in the earth the best laboratory for the application of the principles of chemistry and the ascertainment of many valuable chemical truths. But how can there be a doubt that his attendance upon the lectures and experiments of an intelligent philosopher whose life has been devoted to inquiries and experiments in natural science, with all the advantages which an extensive and improved apparatus could afford, must be in the highest degree beneficial; and, in fact, the very best preparation he could have for the discovery and application of scientific and practical truths in his own agricultural operations? What Mr Holbrook learnt in Professor Silliman's laboratory, has undoubtedly given to him increased interest, pleasure, and success in his farming; and has been the great stimulus and the successful guide to his public-spirited exertions to render knowledge everywhere accessible to the people; and to create a strong taste and passion among them for natural science.

Of the comparative value of what is called a classical education we do not like to trust ourselves to speak at this time, because we have not room to say what we would: and we should be sorry to throw out opinions, which would be deemed heretical, without giving the reasons for those opinions at large. We have opinions on the subject of education and reasons for those opinions; and, if life is spared, those who will take the trouble to read what we have to say, shall hear from us fully. In the mean time we have only to suggest that, though all knowledge is useful, it seems a ridiculous waste of time to begin our studies where all who went before us began, instead of beginning where they left off, and so taking advantage of their experience; that the devotion of the best years of life and of the faculties of the mind in their brightest vigor to the study of a dead language, which contains nothing useful but what may be obtained in a thousandth part of the time through the medium of a translation, and merely for the sake of the pleasure of understanding the accurate inflections of Greek tenses and declensions and of enjoying the euphony of a Greek dialect, is a waste of treasure and a piece of ridiculous coxcombery of which men of sense should see the criminality and the folly. We will add also our conviction that our colleges and universities are actually behind the age; that many of our academies and boarding-schools mistake the true ends of education, and furnish that only which is superficial and a poor equivalent for the time and money expended; that our theological schools are most of them the mere nurseries

of monkery and fanaticism; and that there are now more and better educated men among the self-taught and practical men of our community than among those who have received the parchment diplomas of our public institutions. They speak as well; they often write better. They know more of history, more of art, and more of human nature. They know more of natural philosophy, of moral philosophy, and of political philosophy;—more of law and more of government; less of dogmatical theology, but more of the religion of reason and common sense, which is the only true Christianity; less of the quibbles and scholastic technicalities of forensic practice, but more of the great principles of common law, equal justice, and the inalienable rights of humanity; and above all they have learnt the greatest of all arts, the only certain foundation of all real improvement, the art of using and applying their own physical, mental, and moral energies in a spirit of self reliance, and personal judgment and independence. H. C.

Massachusetts Horticultural Society.

EXHIBITION OF FLOWERS.

Saturday, June 15th, 1839.

Native Flowers, by Wm Oakes, Esq. of Ipswich, viz.—Lupinus perennis, flowers pure white; ditto, flowers flesh colored; ditto, flowers blue; Senecio obovatus, cultivated; Convallaria borealis, ditto.; Eriophorum alpinium.

Also several specimens by Mr John Hovey of Roxbury.

Geraniums.—Thirtyfour varieties from S. Sweetser, Esq. of Cambridgeport. Some of the specimens were very good.

Roses, by S. R. Johnson, Esq. of Charlestown, viz.—China Roses—Agrippina, D'Arcole, La Marque, Noisette, Tagliona; Out door Roses—Noisette, Parma, Duroc, Yellow Harrison, Red and Yellow Austrian.

A fine specimen of Chionanthus Virginica, or White Fringe Tree from the Messrs Winship.

There was also a fine display of cut flowers from the gardens of Hon. John Lowell of Roxbury, Thomas Lee, Esq. of Brookline, and from Messrs Merrill, Winship, Hovey, Howe and Mason.

John Towne, Esq. of Boston, presented several very fine Green-house plants. Particulars hereafter.

For the Committee. S. WALKER, *Chairman.*

Vegetables.—G. W. Stearns, Esq., of Cambridge, exhibited Cucumbers—large and very fine.

Mr Rufus Howe, of Dorchester, Green Peas and early Virginia Strawberries—both fine specimens.

For the Vegetable Committee,
JAMES L. L. F. WARREN, *Chairman.*

NOTICE.—The Massachusetts Horticultural Society will award their premiums, on Saturday next, 22d inst. for the best display of *Roses* $10; for the best twentyfour hardy varieties $5 00; for the best twelve hardy varieties $3; for the best twelve Chinese and other tender varieties $5. Also their premiums for the best display of *Pinks* $5; for the best six varieties $3; for the best seedling $3.

Per order. S. WALKER, *Chairman.*

*** The Rooms of the Society, 23 Tremont Row, are open every Saturday morning from 11 to 1 o'clock for public inspection. June 19

LARGE PIG.—We are informed that Mr Cotton Graves, of Sunderland, raised and fatted a pig, which when slaughtered at the age of twelve months, weighed 460 lbs. We should call this a clever sized animal, for a young one.

BRIGHTON MARKET.—MONDAY, June 17, 1839.

Reported for the New England Farmer.

At Market, 140 Beef Cattle (including 40 unsold last week), 20 Pairs Working Oxen, 18 Cows and Calves, and 770 Swine. Several hundred swine unsold.

PRICES.—*Beef Cattle.*—We again advance our quotations to conform to sales. A few of a very prime quality were sold at $10. We quote First quality, $9 50 a $9 75. Second quality, $9 00 a $9 25. Third quality, $7 50 a $8 50.

Working Oxen.—A few pairs were sold but we cannot quote prices.

Cows and Calves.—Sales, $35, $42, $50, and $65.

Sheep.—None at Market except a few lambs. Prices not made public.

Swine.—"Dull," and prices reduced with the exception of a few of the *Berkshire breed*. A lot of large barrows, selected and very fine, at 8 7-8, and a lot at 8 1-2. A lot of sows to peddle at 7, and a lot of small pigs at 9. At retail from 7 1-2 to 11. We noticed the sale of one Berkshire weighing about 150 at $50.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, week ending June 16.

June, 1839.		5 A.M.	12, M.	7, P.M.	Wind.
Monday,	10	60	70	69	W.
Tuesday,	11	62	75	66	W.
Wednesday,	12	48	63	54	N. W.
Thursday,	13	44	60	50	S.
Friday,	14	45	70	62	S. E.
Saturday,	15	55	77	64	S.
Sunday,	16	53	67	52	S.

SCYTHES AND RAKES.

The subscribers have received their usual supply of Scythes, Rakes, &c. among which are

100 doz. Hall's Rakes, superior.
100 " Wilder and Eddy's, do.
200 " Common, do.
25 " English Cast Steel Grass Scythes.
10 " " " " Cradle "
100 " " " " Border "
200 " Round Scythe Stones and Rifles.
100 " Square " " "
300 " Patent Scythe Snaiths, superior.

June 19. JOSEPH BRECK & CO.

MULBERRY FOLIAGE.

Quantities of Mulberry Leaves for feeding Silk Worms, may be had by application, personally or by mail to WINSHIP'S Establishment, or to JOSEPH BRECK & CO. 52 North Market Street, Boston.

Brighton, June 17.

SAYLE'S GARDEN ENGINE.

For sale at the New England Agricultural Warehouse Nos. 51 and 52 North Market Street, Sayle's Garden Engines This Engine is a splendid article, and will throw a constant stream of water to the distance of 50 or 60 feet, with great force, and in case of fire would be a good substitue for a fire engine. It is the most perfect article for the purpose ever introduced. JOSEPH BRECK & CO.

BEES WANTED.

One or two first rate Hives of BEES *wanted immediately*. They must be warranted free from the *moth*. Apply at the New England Farmer Office, 52 North Market Street.

June 12

DURHAM SHORT HORN BULL.

For sale, a very fine Durham Short Horned Bull, three years old. For further particulars inquire at the New England Agricultural Warehouse.

Boston, June 12, 1839

BOAR FOR SALE.

For sale a Boar 3 parts Berkshire, 1 part Mackay, one year old, raised by Elias Phinney, Esq., of Lexington. Apply to JOSEPH BRECK & CO., New England Farmer Office.

June 5. 2t SIMON H. BARRETT, Malden.

DOUBLE DAHLIA ROOTS.

For sale at the New England Agricultural Warehouse and Seed Store, a superb collection of Double Dahlias, consisting of all the improved varieties.

Also, Double Carnations of many fine varieties.

May 6. JOSEPH BRECK & Co.

Sheet Lead and Lead Pipe.

Sheet Lead and Lead Pipe all sizes, constantly for sale at No. 1 City Wharf, by A. FEARING & CO.

May 22. 8w

CORN SHELLERS.

Just received at the New England Agricultural Warehouse and Seed Store, Nos. 51 and 52 North Market Street, a supply of Currier's Patent Corn Shellers; a very convenient and cheap article. A right to using said machines in counties or towns may be obtained by applying as above.

April 17. JOSEPH BRECK & CO.

NEW BOOKS.

A Treatise on the Cultivation of the Dahlia and Cactus. By E. Sayers.

Also, Birds and Flowers and other Country Things. By Mary Howitt.

Dennis' Silk Manual.

American Flower Garden Companion.

American Fruit Garden Companion, and

An Essay on the Practicability of Cultivating the Honey Bee in Maritime Towns and Cities as a Source of Domestic Economy and Profit. By J. V. C. Smith, M. D., for sale by

June 12 JOSEPH BRECK & CO.

WHOLESALE PRICES CURRENT.

CORRECTED WITH GREAT CARE, WEEKLY.

			From	To
Ashes, Pearl, per 100 lbs.			6 75	7 00
Pot, " " "			5 00	5 12
Beans, white, Foreign,		bushel	1 75	2 25
" " Domestic,		"	2 00	3 00
Beef, mess,		barrel		16 00
No. 1.		"	14 50	14 75
prime,		"		13 00
Beeswax, white,		pound	37	40
yellow,		"	28	34
Cheese, new milk,		"	10	12
Bone Manure,		bushel		35
in casks,		"		40
Feathers, northern, geese,		pound		
southern, geese,		"	37	46
Flax. (American)		"	9	12
Fish, Cod, Grand Bank,		quintal	3 87	4 00
Bay,		"		
Mackerel, No. 1		barrel	14 50	
Flour, Genesee, cash,		"	6 50	6 75
Baltimore, Howard street,		"		7 00
Richmond canal,		"	6 62	6 75
Alexandria wharf,		"	6 62	
Rye,		"	5 50	5 75
Meal, Indian, in bbls.		"	4 37	4 50
Grain: Corn, northern yellow,		bushel		1 00
southern flat, yellow,		"	90	91
white,		"	86	88
Rye, northern,		"		1 15
Barley,		"	80	85
Oats, northern, (prime)		"		65
Hay, best English, per ton,			18 00	20 00
Eastern screwed,			13 00	14 00
Hops, 1st quality,		pound	16	17
2d quality,		"	14	15
Lard, Boston, 1st sort,		"	12	14
southern, 1st sort,		"	12	13
Leather, Philadelphia city tannage,		"	29	30
do. country do.		"	25	27
Baltimore city tannage,		"	26	28
do. dry hides,		"	24	25
New York red, light,		"	22	24
Boston, do. slaughter,		"	22	23
Boston dry hides,		"	21	23
Lime, best sort,		cask	80	85
Oil, Sperm, Spring and Summer,		gallon	1 15	1 20
Winter,		"	50	60
Whale, refined,		"	75	80
Linseed, American,		"	95	1 00
Neat's Foot,			2 75	3 00
Plaster Paris, per ton of 2200 lbs.		barrel	26 00	
Pork, extra clear,		"	24 00	25 00
clear,		"	20 00	21 00
Mess,		bushel	2 00	2 75
Seeds: Herd's Grass,		"	85	1 00
Red Top, southern,		"		1 50
northern,		"		
Canary,		"	2 62	3 00
Hemp,		"	1 75	1 87
Flax,		pound		
Red Clover, northern,		"		
Southern Clover, none,		"	6	7
Soap, American, No. 1,		"	5	6
" No. 2,		"	13	14
Tallow, tried,		pr M.	3 00	3 50
Teazles, 1st sort,		pound		
Wool, prime, or Saxony Fleeces,		"		
American, full blood, washed,		"		
do. 3-4ths do.		"		
do. 1-2 do.		"		
do. 1-4 and common,		"		
Northern pulled. Pulled superfine,		"		
No. 1,		"		
No. 2,		"		
No. 3,		"		

PROVISION MARKET.

RETAIL PRICES.

Hams, northern,	pound	13	14
southern and western,	"	12	13
Pork, whole hogs,	"	10	11
Poultry, per lb.,	"		
Butter, tub,	"	17	20
lump,	"	18	22
Eggs,	dozen	15	17
Potatoes, Chenango,	bushel	65	70
white,	"	37	50
Apples,			
Russets,	"	4 00	4 50
Cider,	"	3 00	3 25
refined,	"	5 00	6 00

FOR SALE.

A very superior Berkshire Boar and Sow, twentytwo months old, very large of their age. Apply to

May 18. eptf JOSEPH BRECK & CO.

MISCELLANEOUS.

[From the Pictou Mechanic and Farmer.]

THE ALBION MINES AT PICTOU, AND THE COAL TRADE.

From the parlor window an advantageous view of the Mines may be enjoyed. From here may be seen half a dozen large chimnies, issuing columns of dark smoke. These are connected with the steam engines of foundry and coal works. One of the chimnies, used for the purpose of ventilation, is over 140 feet in height, and is a handsome structure. The pits are eight in number, one of them over 60 fathoms deep; and one of the engines is 70 horse power.

To the left, and in the rear of the inn, are the miner's houses. Their number is astonishing, and is probably not less than 250, over 100 of which were erected last year, and have a neat and pleasing appearance. In returning from the inn, nearly opposite to the office stands a small high-pressure engine of 10 or 12 horse power—the only one at the works. Farther on, in rear of the store, stands another engine of 28 horse power. These two engines are attached to the first set of pits—into one of which we descended, and enjoyed a ride for near half a mile on a subterranean railroad.

Passing along further you come to the stables, which, though a shabby set of buildings, contain the finest and largest stud of horses in the province; and in the lower regions there are upwards of 50 more of equal beauty and strength. These horses have been selected from all parts of the Province, and many of them are the descendants of the Sampson horse. They are certainly fine animals, and their round and glossy appearance do great credit to their keepers. Farther on, stands the carpenters' shops and lumber yard, enclosed by a neat board fence. To your left, crossing the old railroad, are the new range of pits sunk during the last year. Four of the newly opened pits are for drawing coal, and the other two for the purpose of ventilating the works. The deepest of the two latter (450 feet) is called the engine pit, where the pumps and machinery for drawing the water from the mines are erected. The two winding engines, 25 horse power each, made at the "Albion Foundry," are erected; the pumping engine, 70 horse power, is erected, and the pumps are being put in will be completed about the first of June. The house containing this engine is a handsome stone building. We are informed that when completed, this new work will employ about 150 colliers, in addition to the immense number now employed on the premises. There are now from 5000 to 6000 chaldrons of coal raised per month.

To your right, on the opposite side of the road, are the coke and coal-tar ovens. A little farther onward, stands enclosed the foundry and its appendages, under the management of Mr H. W. Davis. This is also a large brick building, containing a steam engine of 20 horse power, and ample moulding, pattern and finishing rooms, &c. There is also a saw mill propelled by steam power, in constant operation on the premises. Three of the engines now in operation at Mines, were constructed at this foundry, the beam of one of which is over 30 feet long, and of 5 tons weight. Castings of every description can be supplied at the foundry, and the fact that the engines constructed there appear equal if not superior to others connected with the works, add no little to the confidence that may be placed in Mr Davis, as an experienced engineer.

Before leaving the mines, the traveller must visit a spot on the river, a little above the store, where fire may be seen burning on the surface of the water—caused by carburetted hydrogen gas arising from the bed of the river—passing through the water, and escaping in bubbles on its surface. On applying a lighted candle or a piece of paper to the gas, it will ignite, and continue burning for weeks. Over it may frequently be seen a pot boiling on the water, the river frequently on fire, while some of the finny tribe may frequently be seen gliding through the water below the flames. Persons in the vicinity avail themselves of this burning gas, in heating water for washing.

Proceeding down the railroad about 2 1-2 miles, and about 1-4 of a mile below the bridge at New Glasgow, stand the shipping wharves, shoots, &c. Here the old railroad terminates—here the coal brought down from the mines in wagons of one chaldron each (one horse bringing four or five) are loaded into lighters, or vessels not exceeding eight feet draft of water. It was the intention of the company to have removed some banks in the river, so as to bring up twenty feet of water to this place; but we are sorry to say that after constructing a drudging boat, mud lighters, &c. they abandoned this part of their plan, in consequence of opposition experienced, we are informed, from persons in New Glasgow, who we certainly think have defeated their own interest. Here are constantly in employ two steamboats of 30 horse power each, engaged principally in towing coal lighters and vessels with their freight up and down the river—and in one of which a passage down the river may be obtained for a trifle. About two miles further down, on the opposite side of the river, may be seen the ship yard of the establishment. Here are slips for hauling up the steamboats and lighters; where during the winter, there were three steamboats and thirty lighters of various sizes, some of carrying 40 chaldrons of coal, all placed side by side and far from ice and water. As you proceed down the river, the attention is attracted by the excavations, embankments, bridges, &c. of the new *locomotive railroad.*

About three miles down from the shipyard, is South Pictou, where may be seen the largest bridge and range of wharves in Nova Scotia. The wharves are situated on the bank of the channel, and are 600 feet in length. On these are the conveniencies for loading vessels engaged in the coal trade, embracing a steam engine of 18 horse power, called a "transfer engine." It was erected last autumn, and adds materially to the previous facilities in shipping. The coal is placed in boxes containing two chaldrons each; the engine raises the box with its contents and places it over the vessel's hatchway, when a trap-door in its bottom is opened and the whole speedily transferred into the ship's hold. Sixty chaldrons can thus be transferred with safety and ease in an hour's time. Here the new railroad is to terminate, being about six miles in length, and connected with the wharves by a bridge 1600 feet in length, built on piles and raised about 20 feet above high water mark. It is in a very forward state, and probably will be completed in three months. During the last summer, from 25 to 35 sail of American vessels might frequently be seen here at a time. Over 300 sail of vessels of various descriptions were loaded here last year; and if we are not misinformed that number will be doubled this season. There are three locomotive engines on their way from England for the railroad, which, when they arrive with those already at the works, will amount to the number of *twelve steam engines*, to be in operation during the course of the summer.

It is an undeniable principle, that the best encouragement that can be given to agriculture and industry is to increase the consumption of the produce of one, and extend the demand for the other. Applying this to the mines under review, it will be found that nothing contributes so directly to enrich this section of the province. Property in their vicinity has increased in value in many places over 100 per cent.; and we are informed that a farm—poor land, too—which a few years since could have been purchased for £250 or £300, will not now be parted with for £700. Still there are persons who say that the mines are of no advantage in the hands of this company. We believe it not. Where could the capital be found on this side the Atlantic here invested? or if procured who would invest it?

BONE MANURE.

The subscriber informs his friends and the public, that, after ten years experience, he is fully convinced that ground bones form the most powerful stimulant that can be applied to the earth as a manure.

He keeps constantly on hand a supply of Ground Bone, and solicits the patronage of the agricultural community. Price at the Mill 35 cents per bushel; put up in casks and delivered at any part of the city at 40 cents per bushel, and no charge for casks or carting.

Also, ground Oyster Shells.

Orders left at the Bone Mill, near Tremont road, in Roxbury, at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, or through the Post Office will receive prompt attention.

March 27. NAHUM WARD.

FOR NEW YORK.

Cabin Fare $3 00—*Deck Fare* $1 50.

The Steamer JOHN W. RICHMOND, Capt. Wm. H. Townsend, will leave Providence on MONDAYS and THURSDAYS, at 4 o'clock, P. M.

☞ Cars to meet the boat will leave Boston at half past 2 o'clock, P. M.

Mondays and *Thursdays*, will be her regular days of leaving *Providence*, until futher notice.

For further information, apply to S. Q. Cochran, 30 Congress Street, Boston.

N. B. Freight taken at 6 cents per cubic foot.

June 5.

BRUSSA MULBERRY.

A fresh lot of *genuine* Brussa Mulberry Seed just received at the New England Agricultural Warehouse and Seed Store, Nos. 51 and 52 North Market Street This species of Mulberry flourishes best in high and even *poor lands*, and is more likely to endure the rigors of our severe winetrs and not so subject to the effect of the frost, as trees brought from more southern latitudes, or warmer climes.

The leaves of the Morus alba of Brussa, are said to contain a much greater quantity of saccharine matter, than any other of the white species, and moreover, the leaf is much larger than those of Italy and Spain; it is also a hardy tree, susceptible of being raised in climates, where the frosts are severe.

At the annual fair of the American Institute, at New York, in October last, specimens of the leaves of the Brussa tree, of different years' growth, were exhibited, and excited universal approbation, and the Institute awarded a silver medal for the introduction of this invaluable tree, observing in the report of the committee, "that these with every new and useful plant, calculated to withstand the rigors of our climate, are worthy of attention, and those introducing them into our country, deserve to be placed on the catalogue of our country's benefactors."

May 22.

THE NEW ENGLAND FARMER

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